

- 22 -
CLAIMS

1. A method for producing high silicate glass, the method comprising:

a phase-separating step of subjecting to heat treatment borosilicate glass containing a heavy metal or rare-earth element, so as to phase-separate the borosilicate glass;

an acid-treatment step of subjecting the phase-separated borosilicate glass to acid treatment so as to elute a metal; and

a sintering step of sintering the acid-treated borosilicate glass.

2. The method according to Claim 1, wherein the borosilicate glass contains any one element of manganese, cerium, chromium, cobalt, and copper.

3. The method according to Claim 2, wherein the borosilicate glass includes 0.1 wt% to 2.0 wt% of oxide of the element.

4. The method according to any one of Claims 1 to 3, wherein the borosilicate glass is produced by carrying out first and second melting steps of melting a raw material by heating the raw material.

5. The method according to Claim 4, wherein boric acid to be contained in the borosilicate glass is added in the second melting step.

6. The method according to any one of Claims 1 to 5, wherein:

when the borosilicate glass contains cerium or chromium,

the borosilicate glass is subjected repeatedly to heat treatment and acid treatment between the acid-treatment step and the sintering step and is then subjected to further acid treatment by using acid containing ethylenediamine tetraacetic acid.

7. High silicate glass produced by the method according to any one of Claims 1 to 6.

8. High silicate glass transmitting 30% or more of light at a wavelength of 200 nm when containing 10 ppm or more of boron and having a thickness of 1 mm.